

FIG. 1

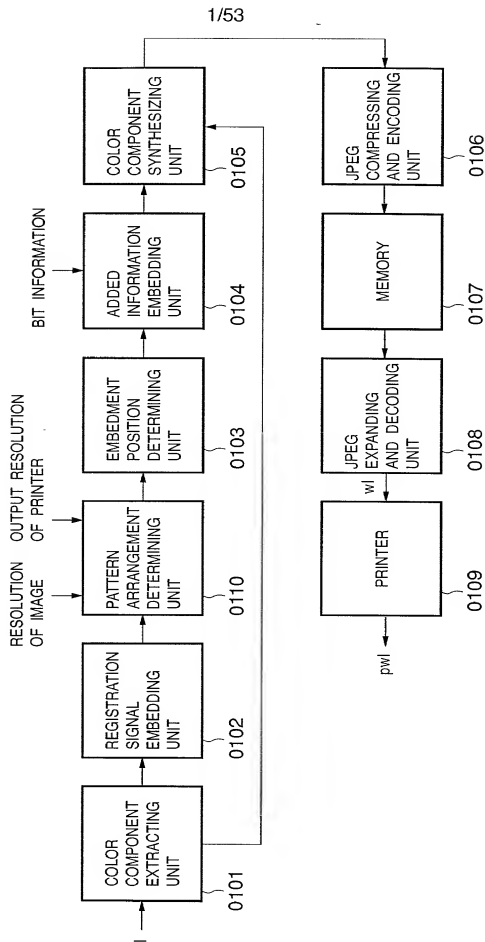


FIG. 2

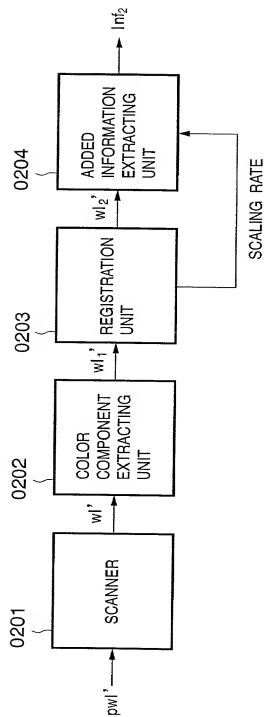
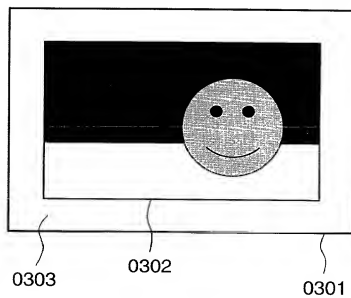


FIG. 3



09824746.040404

FIG. 4

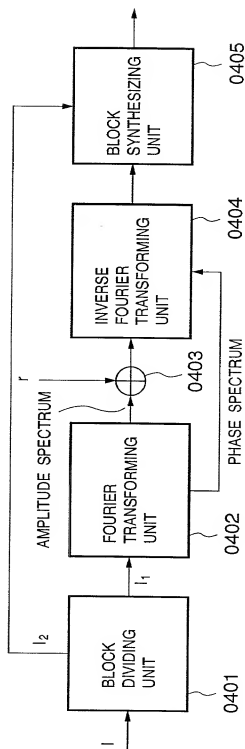


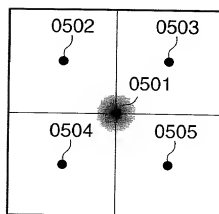
FIG. 5

FIG. 6

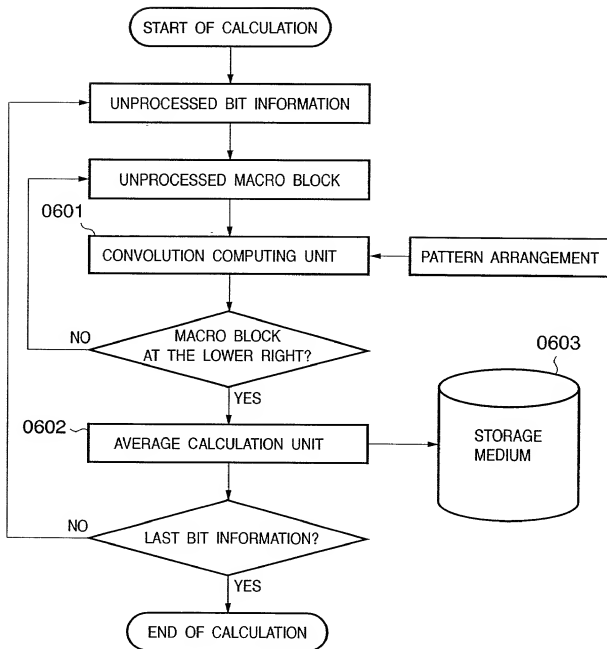


FIG. 7

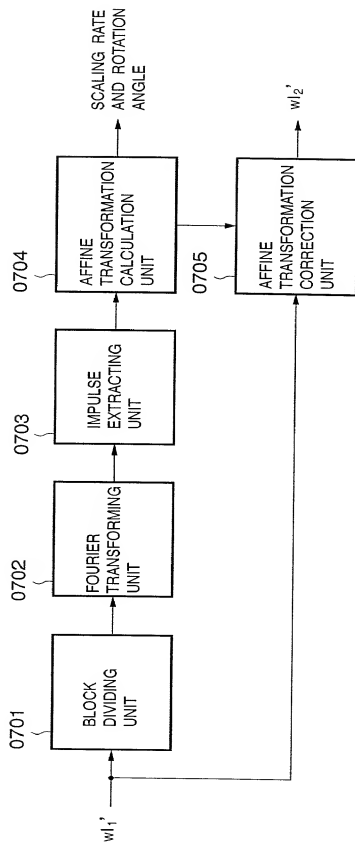


FIG. 8A

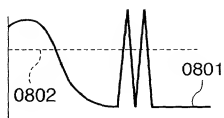


FIG. 8B

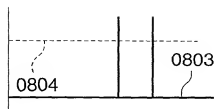


FIG. 9

0901

+c	+c	+c	+c	0	0	0	0
+c	+c	+c	+c	0	0	0	0
+c	+c	+c	+c	0	0	0	0
+c	+c	+c	+c	0	0	0	0
0	0	0	0	-c	-c	-c	-c
0	0	0	0	-c	-c	-c	-c
0	0	0	0	-c	-c	-c	-c
0	0	0	0	-c	-c	-c	-c

00824746-0404041

FIG. 10

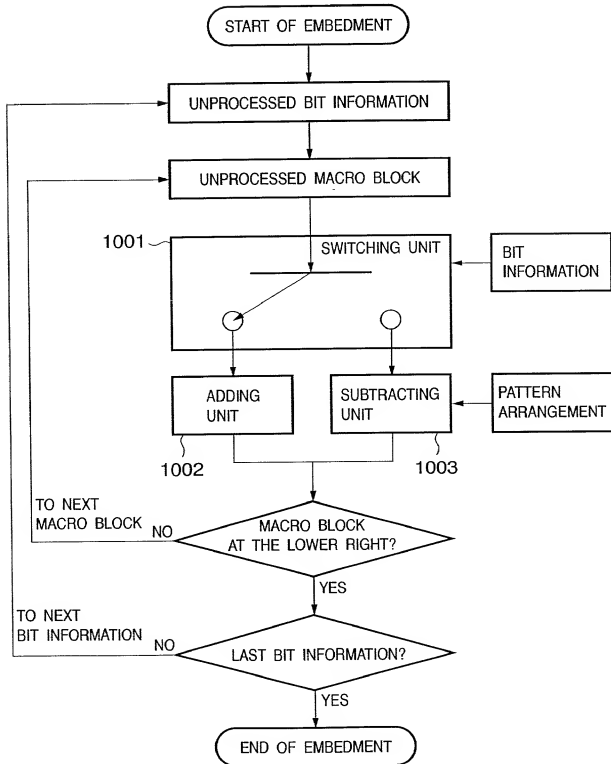


FIG. 11

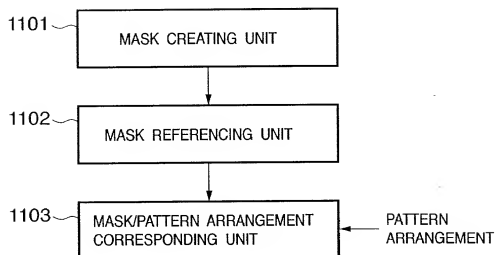


FIG. 12

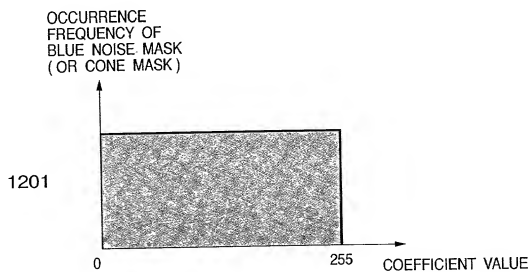


FIG. 13

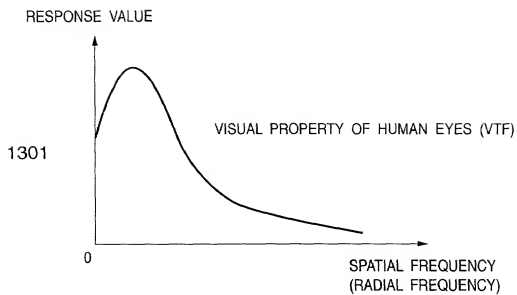


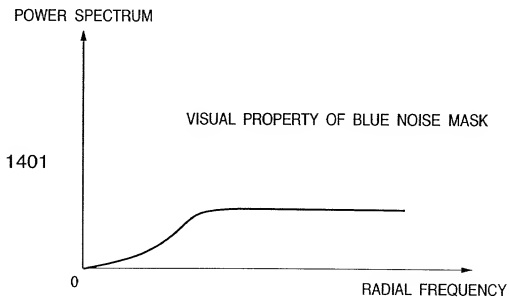
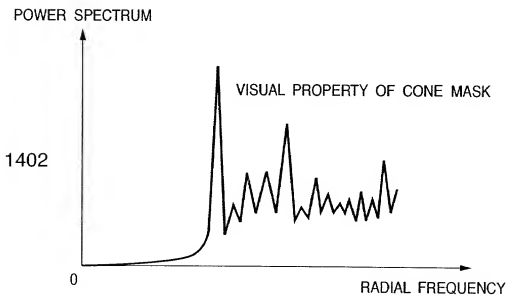
FIG. 14A**FIG. 14B**

FIG. 15

1501

0	14	13	3
11	5	6	8
7	9	10	4
12	2	1	15

FIG. 16

1601

0	14	13	3
11	5	6	8
7	9	10	4
12	2	1	15

FIG. 17A

1701

0	14	13	3
11	5	6	8
7	9	10	4
12	2	1	15

FIG. 17B

1702

1703

A 14x14 grid with four shaded 7x7 quadrants. The top-left quadrant is labeled '0' in its top-left cell. The top-right quadrant is labeled '14' in its top-left cell. The bottom-left quadrant is labeled '11' in its top-left cell. The bottom-right quadrant is labeled '5' in its top-left cell.

FIG. 18A

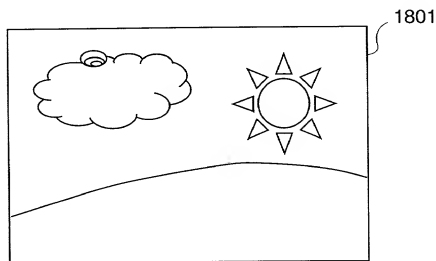


FIG. 18B

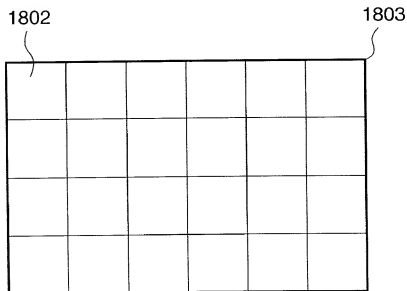


FIG. 19

The diagram illustrates the addition of two 8x8 matrices, $P(x, y)$ and $I'(x, y)$, to produce an 8x8 result matrix. The matrices are labeled with indices a_{ij} from a_{00} to a_{77} . The result matrix has values: a_{00} to a_{37} are $+C$; a_{40} to a_{47} are 0 ; a_{50} to a_{57} are 0 ; a_{60} to a_{67} are 0 ; and a_{70} to a_{77} are 0 .

FIG. 20

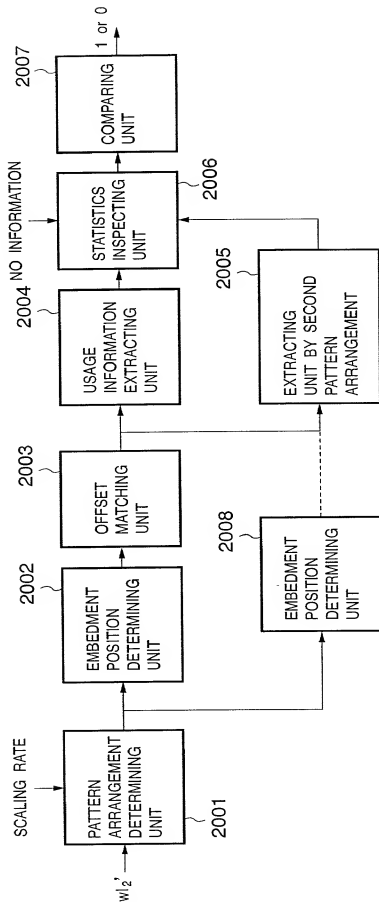


FIG. 21

a ₀₀	a ₀₁	a ₀₂	a ₀₃	a ₀₄	a ₀₅	a ₀₆	a ₀₇
a ₁₀	a ₁₁	a ₁₂	a ₁₃	a ₁₄	a ₁₅	a ₁₆	a ₁₇
a ₂₀	a ₂₁	a ₂₂	a ₂₃	a ₂₄	a ₂₅	a ₂₆	a ₂₇
a ₃₀	a ₃₁	a ₃₂	a ₃₃	a ₃₄	a ₃₅	a ₃₆	a ₃₇
a ₄₀	a ₄₁	a ₄₂	a ₄₃	a ₄₄	a ₄₅	a ₄₆	a ₄₇
a ₅₀	a ₅₁	a ₅₂	a ₅₃	a ₅₄	a ₅₅	a ₅₆	a ₅₇
a ₆₀	a ₆₁	a ₆₂	a ₆₃	a ₆₄	a ₆₅	a ₆₆	a ₆₇
a ₇₀	a ₇₁	a ₇₂	a ₇₃	a ₇₄	a ₇₅	a ₇₆	a ₇₇


$$= 320^2$$

O	O	O	O	☐	☐	☐	☐
O	O	O	O	☐	☐	☐	☐
O	O	O	O	☐	☐	☐	☐
O	O	O	O	☐	☐	☐	☐
+C	+C	+C	+C	O	O	O	O
+C	+C	+C	+C	O	O	O	O
+C	+C	+C	+C	O	O	O	O
+C	+C	+C	+C	O	O	O	O

$$I''(x, y)$$

CONVOLUTION

 $P(x, y)$

FIG. 22

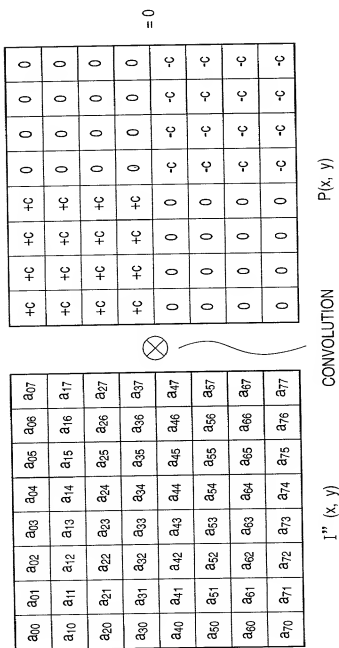


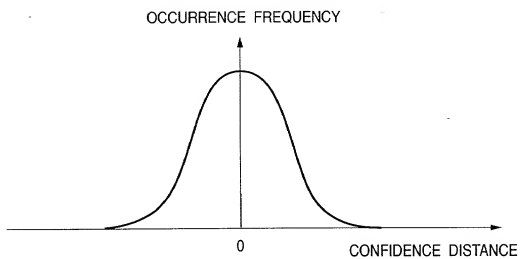
FIG. 23

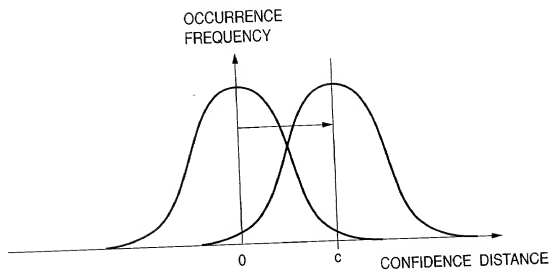
FIG. 24

FIG. 25

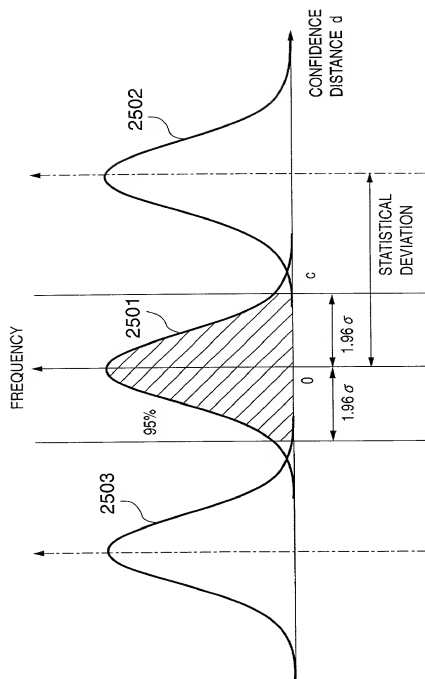


FIG. 26

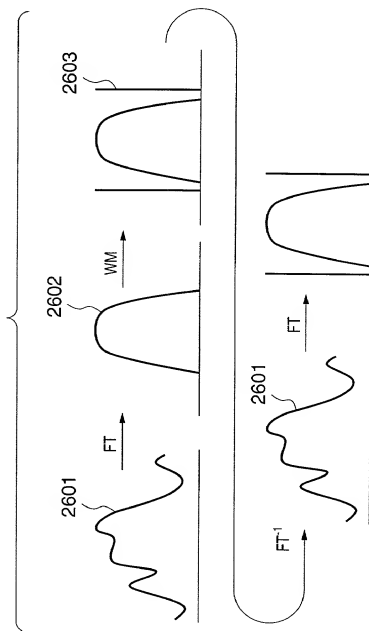


FIG. 27A FIG. 27B FIG. 27C

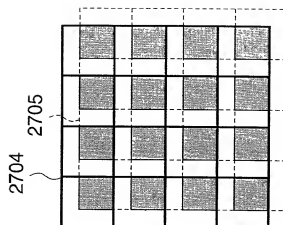
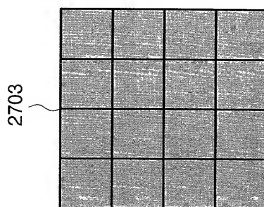
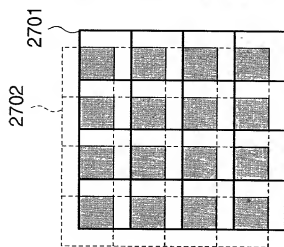


FIG. 28

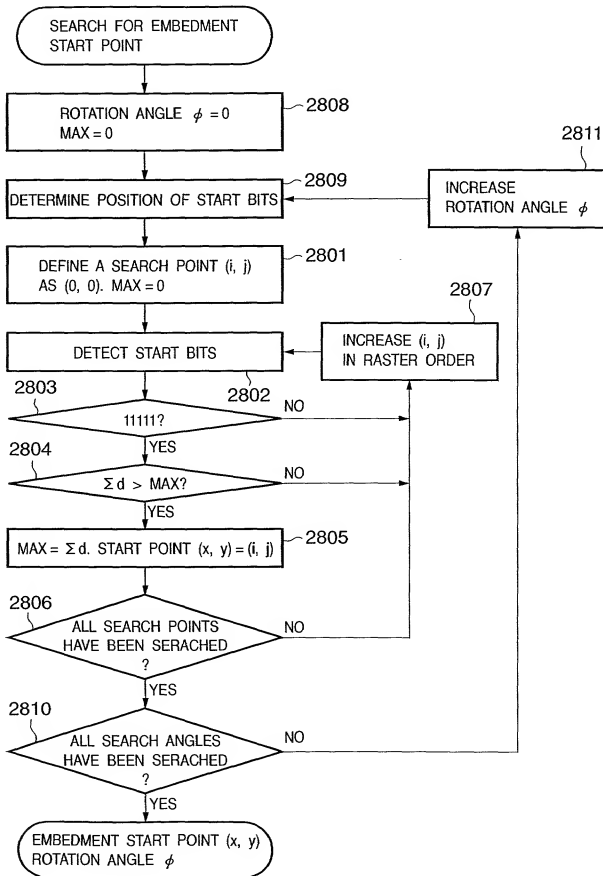


FIG. 29

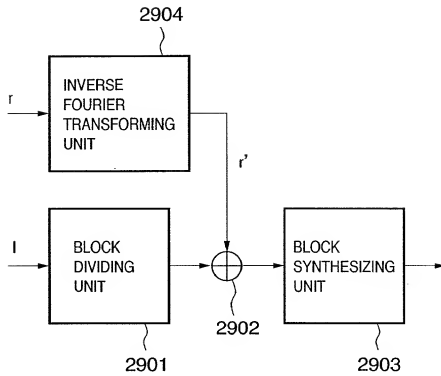


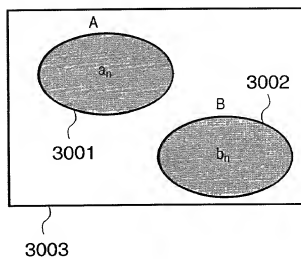
FIG. 30

FIG. 31

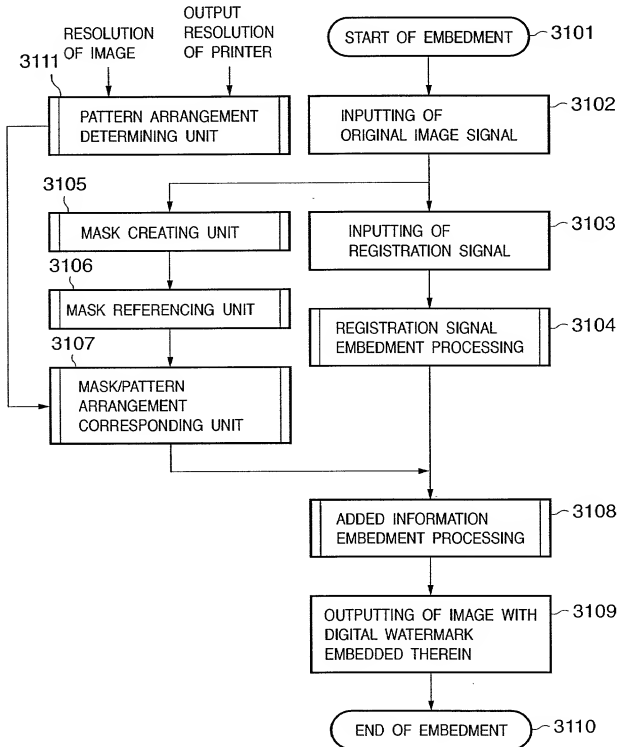


FIG. 32

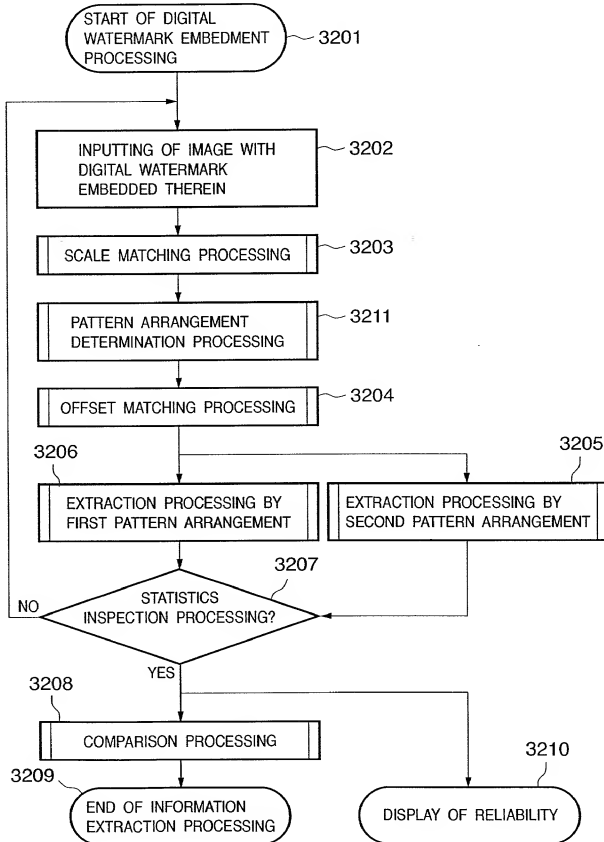


FIG. 33A

3301

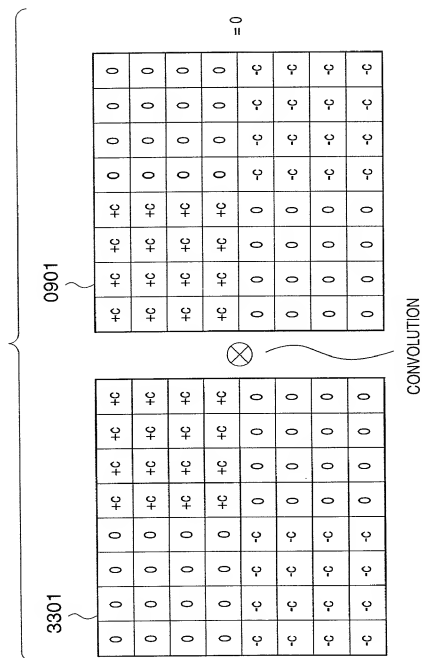
0	0	0	0	+c	+c	+c	+c
0	0	0	0	+c	+c	+c	+c
0	0	0	0	+c	+c	+c	+c
0	0	0	0	+c	+c	+c	+c
-c	-c	-c	-c	0	0	0	0
-c	-c	-c	-c	0	0	0	0
-c	-c	-c	-c	0	0	0	0
-c	-c	-c	-c	0	0	0	0

FIG. 33B

3302

-c	-c	0	0	0	0	-c	-c
-c	-c	0	0	0	0	-c	-c
0	0	+c	+c	+c	+c	0	0
0	0	+c	+c	+c	+c	0	0
0	0	+c	+c	+c	+c	0	0
0	0	+c	+c	+c	+c	0	0
-c	-c	0	0	0	0	-c	-c
-c	-c	0	0	0	0	-c	-c

FIG. 34



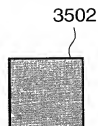
09324746.040401

FIG. 35A



FIRST EMBEDMENT
POSITION REFERENCE MASK

FIG. 35B



SECOND EMBEDMENT
POSITION REFERENCE MASK

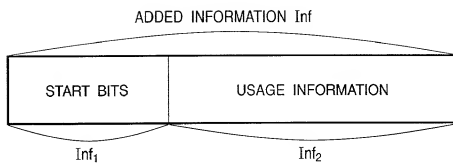
FIG. 36

FIG. 37

69	211	9	217	16	35	190	101
87	197	109	180	117	212	71	114
166	28	55	143	104	146	85	130
64	206	179	48	240	232	108	154
67	40	91	224	37	32	223	194
203	214	106	231	169	4	208	24
47	195	27	61	2	155	81	213
251	84	202	184	170	10	46	138

COEFFICIENT LAYOUT OF BLUE NOISE MASK (PARTIAL)

FIG. 38

73	244	124	207	70	254	117	196
38	177	11	132	43	186	4	138
104	221	93	231	100	211	85	237
23	151	55	165	26	153	56	172
67	250	113	193	79	240	123	203
47	188	1	142	33	183	14	128
96	215	83	232	111	218	91	227
28	157	60	171	17	147	51	160

COEFFICIENT LAYOUT OF CONE MASK (PARTIAL)

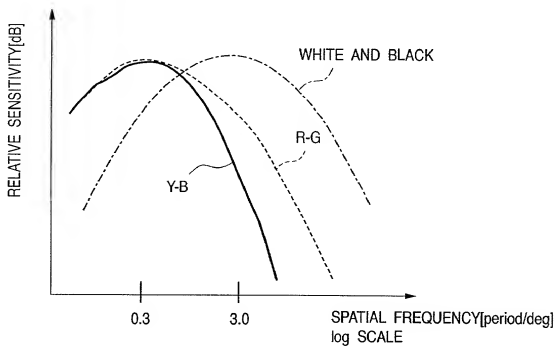
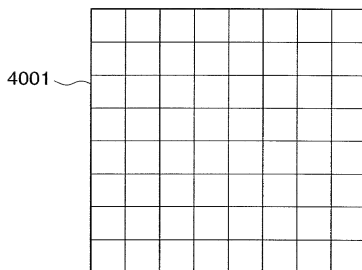
FIG. 39

FIG. 40

MINIMUM CODING UNIT (MCU)

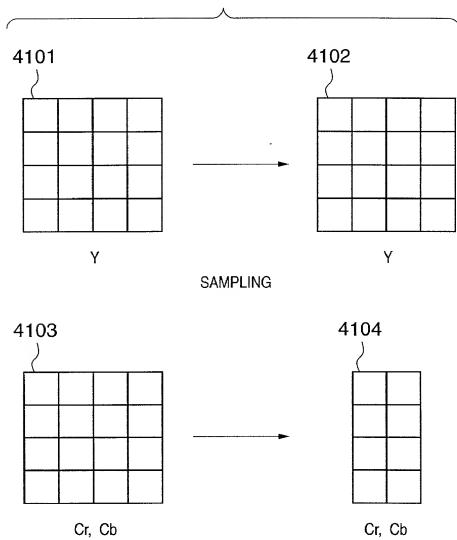
FIG. 41

FIG. 42

4201	+C	+C	+C	+C	0	0	0	0
	+C	+C	+C	+C	0	0	0	0
	+C	+C	+C	+C	0	0	0	0
	+C	+C	+C	+C	0	0	0	0
4202	0	0	0	0	-C	-C	-C	-C
	0	0	0	0	-C	-C	-C	-C
	0	0	0	0	-C	-C	-C	-C
	0	0	0	0	-C	-C	-C	-C

FIG. 44

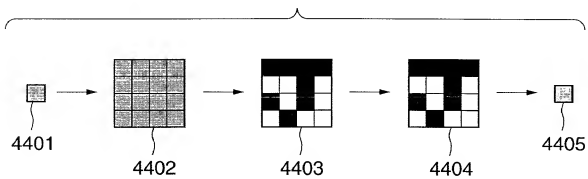


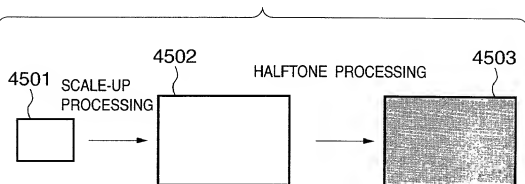
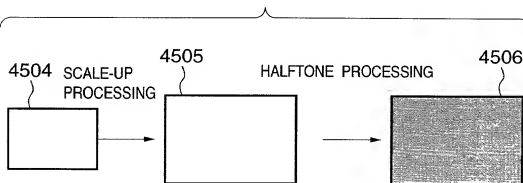
FIG. 45A**FIG. 45B**

FIG. 46

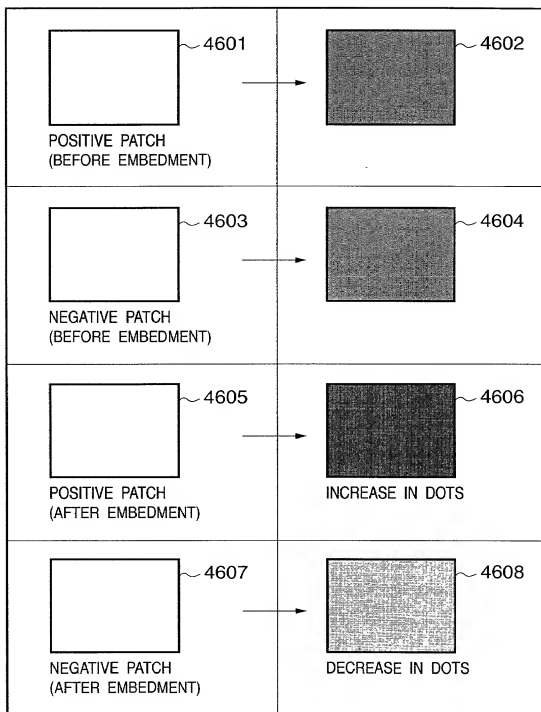


FIG. 47

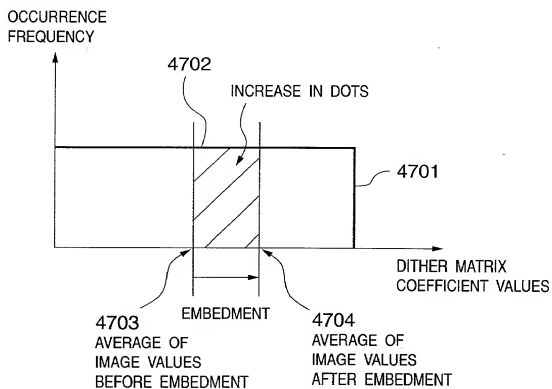


FIG. 48A

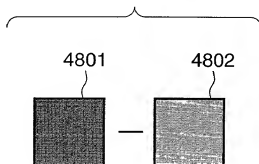
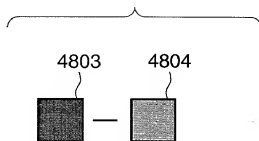


FIG. 48B



DIFFERENTIAL OF PATTERN
ARRANGEMENT UNITS

FIG. 49A

4901

+c	+c	+c	+c	0	0	0	0
+c	+c	+c	+c	0	0	0	0
+c	+c	+c	+c	0	0	0	0
+c	+c	+c	+c	0	0	0	0
0	0	0	0	-c	-c	-c	-c
0	0	0	0	-c	-c	-c	-c
0	0	0	0	-c	-c	-c	-c
0	0	0	0	-c	-c	-c	-c

FIG. 49C

4902

0	0	0	0	+c	+c	+c	+c
0	0	0	0	+c	+c	+c	+c
0	0	0	0	+c	+c	+c	+c
0	0	0	0	+c	+c	+c	+c
-c	-c	-c	-c	0	0	0	0
-c	-c	-c	-c	0	0	0	0
-c	-c	-c	-c	0	0	0	0
-c	-c	-c	-c	0	0	0	0

FIG. 49B

4903

+c	+c	+c	+c	+c	0	0	0	0	0
+c	+c	+c	+c	+c	0	0	0	0	0
+c	+c	+c	+c	+c	0	0	0	0	0
+c	+c	+c	+c	+c	0	0	0	0	0
+c	+c	+c	+c	+c	0	0	0	0	0
+c	+c	+c	+c	+c	0	0	0	0	0
+c	+c	+c	+c	+c	0	0	0	0	0
0	0	0	0	0	-c	-c	-c	-c	-c
0	0	0	0	0	-c	-c	-c	-c	-c
0	0	0	0	0	-c	-c	-c	-c	-c
0	0	0	0	0	-c	-c	-c	-c	-c
0	0	0	0	0	-c	-c	-c	-c	-c
0	0	0	0	0	-c	-c	-c	-c	-c
0	0	0	0	0	-c	-c	-c	-c	-c

FIG. 49D

4904

0	0	0	0	0	0	-c	-c	-c	-c
0	0	0	0	0	0	-c	-c	-c	-c
0	0	0	0	0	0	-c	-c	-c	-c
0	0	0	0	0	0	-c	-c	-c	-c
0	0	0	0	0	0	-c	-c	-c	-c
0	0	0	0	0	0	-c	-c	-c	-c
0	0	0	0	0	0	-c	-c	-c	-c
+c	+c	+c	+c	+c	0	0	0	0	0
+c	+c	+c	+c	+c	0	0	0	0	0
+c	+c	+c	+c	+c	0	0	0	0	0
+c	+c	+c	+c	+c	0	0	0	0	0
+c	+c	+c	+c	+c	0	0	0	0	0
+c	+c	+c	+c	+c	0	0	0	0	0
+c	+c	+c	+c	+c	0	0	0	0	0
+c	+c	+c	+c	+c	0	0	0	0	0

FIG. 50A

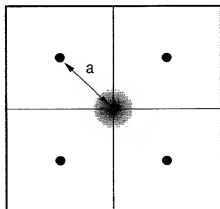


FIG. 50B

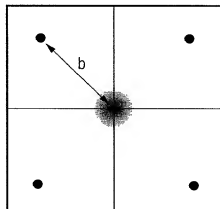


FIG. 51A

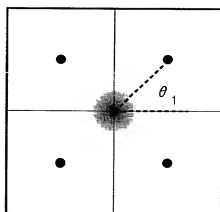


FIG. 51B

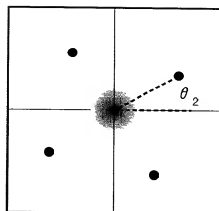


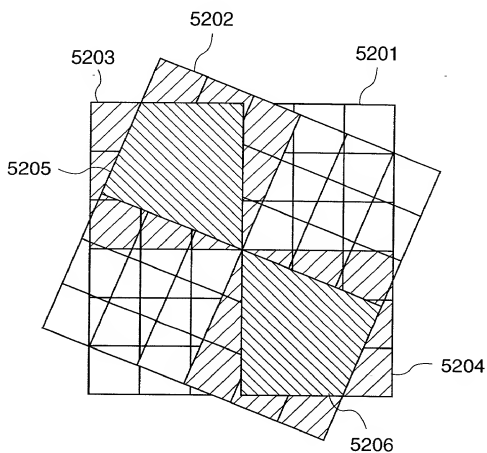
FIG. 52

FIG. 53

